

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the present amendments and following discussion, is respectfully requested.

Claims 6-16 are pending. By this amendment Claims 6 and 8 are amended to correct informalities and new Claims 11-16 are added. No new matter has been added.

Applicants respectfully request that the Information Disclosure Statement filed April 6, 2005 be acknowledged. A copy of the Form PTO 1449 is provided for the Examiner's convenience.

The Office Action rejects Claims 6, 8 and 10 under 35 U.S.C. §102(e) over USP 6,555,779 to Obana et al., Claim 7 under 35 U.S.C. §103(a) over Obana et al. in view of USP 4,475,788 to Tomassini et al. and Claim 10 under 35 U.S.C. §103(a) over Obana et al. in view of USP 6,608,285 to Lefebvre et al. These rejections are respectfully traversed.

Before considering the rejections under 35 U.S.C. §102 and 35 U.S.C. §103, it is believed that a brief review of the subject matter of the independent claims would be helpful.

Independent Claim 6 includes an installation for welding in a chamfered joint including a laser, a filler metal wire, a wire guide electrode, and a head configured to penetrate into the chamfer, extended along longitudinal and depth directions of the chamfer and narrow in a transverse direction of the chamfer, first and second central drillings passing through the head essentially in a depth direction, but converging towards each other under the head, the first drilling being aligned with the laser and the second drilling containing the wire guide electrode and two pipes configured to eject a protection gas through the head and ending up in front and behind the first and second central drillings.

New independent Claim 11 includes, *inter alia*, two pipes configured to eject a protection gas passing through the head and ending up in chambers located before and behind the first and second central drillings in the longitudinal direction and extending over a

sufficient length in the longitudinal direction to completely cover a molten bath generated when the installation is in use.

New independent Claim 16 includes, *inter alia*, a method including blowing a protection gas through the pipes into the chambers, lowering the head into the chamfer joint, advancing the head along the chamfer joint and creating a molten bath under the head, the molten bath being completely covered by the chambers.

With respect to the rejection to Claim 6, Applicants respectfully disagree with the Office Actions' assertion that Obana et al. provides all the features of Claim 6. In particular, Obana et al. does not disclose a wire guide electrode and a laser. Instead, Obana et al. uses as a heat source an arc or a laser. See Obana et al. at column 3, lines 15-17. Thus, the embodiments of Obana et al. use either an arc or a laser but not both.

With respect to new independent Claims 11 and 16, Obana et al. discloses a welding apparatus in which gas is blown into a central circular, single cavity inside the head, out of pipes 519 and 520. See Figure 5. However, Obana et al. fails to disclose that the pipes are connected into distinct front and rear chambers which extend longitudinally before and after central bores or any cavity for the laser beam and the electrode wire so that a molten bath under the welding head is completely covered and the welding head can have a sleek layout, longitudinally elongated but transversely narrow, enabling it to enter a chamfer.

Instead, Obana et al. discloses at column 16, lines 6-22 that the shield gas is provided primarily for protecting the inside of the head and the outside environment with means for filling the cavity with a pressure sufficient to overcome the ingress of water in an underwater application. Obana et al. therefore does not disclose or suggest to completely cover the molten bath with the blown gas.

Tomassini et al. and Lefebvre et al. do not provide the deficiencies of Obana et al. discussed above.

The dependent claims are allowable for at least the reasons discussed above and for the individual features they recite. Withdrawal of the rejection of the dependent claims is respectfully requested.

For the foregoing reasons, it is respectfully submitted that this application is now in condition for allowance. A Notice of Allowance is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

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